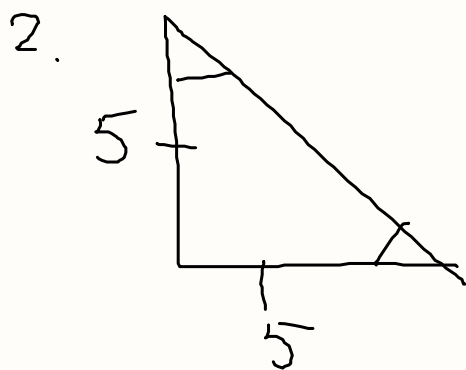


$$C = \sqrt{4^2 + 9^2} = \sqrt{16 + 81} = \sqrt{97} = 9.8in$$



$$C = \sqrt{5^2 + 5^2} = \sqrt{2 \cdot 25} = \sqrt{2} \cdot \sqrt{25} = \sqrt{2} \cdot 5 = 5\sqrt{2} \text{ cm}$$

(3)



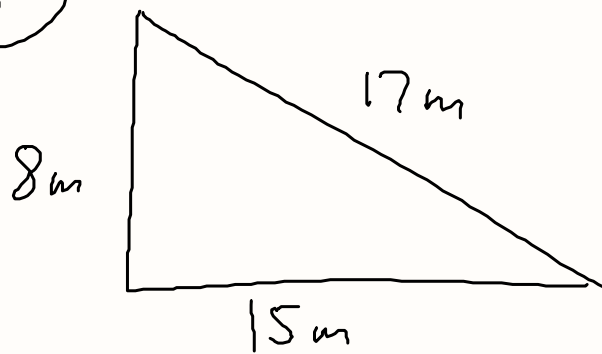
$$b = \sqrt{8^2 + 15^2} =$$

$$= \sqrt{64 + 225} = \sqrt{289} = 17 \text{ ft}$$

(4)

$$C = \sqrt{17^2 + 13^2} = \sqrt{289 + 169} =$$
$$\approx 21.4 \text{ ft}$$

⑤



$$17^2 \stackrel{?}{=} 8^2 + 15^2$$

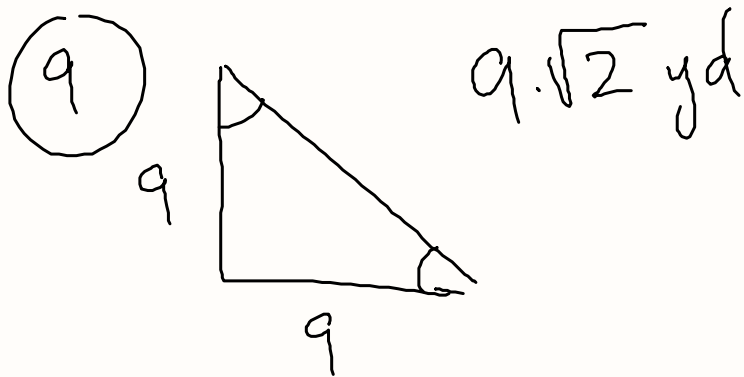
$$289 \stackrel{?}{=} 64 + 225$$

yes

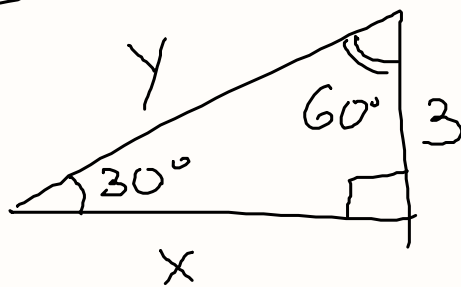
$$\textcircled{6} \quad \sqrt{3 \cdot 100} = \sqrt{100 \cdot 3} = \sqrt{100} \cdot \sqrt{3} = 10\sqrt{3}$$

$$\textcircled{7} \quad 3\sqrt{121} = 3 \cdot 11 = 33$$

$$\begin{aligned}
 \textcircled{8} \quad & 2\sqrt{12} \cdot 3\sqrt{30} = 2 \cdot 3 \sqrt{12 \cdot 30} = \\
 & = 6\sqrt{360} = 6\sqrt{36 \cdot 10} = \underline{6}\sqrt{36}\sqrt{10} = \\
 & = 6 \cdot \underline{6}\sqrt{10} = 36\sqrt{10}
 \end{aligned}$$



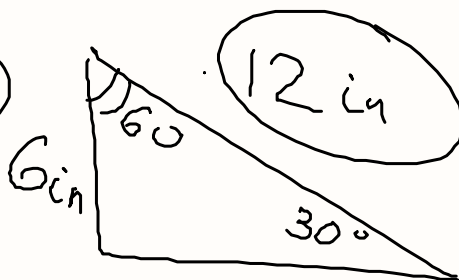
(10)



$$y = 2 \cdot 3 = 6 \text{ cm}$$

$$x = 3\sqrt{3}$$

(11)



$$12 + 6 + 10.2 = 28.2 \text{ in}$$

$$\underline{6\sqrt{3}} = \underline{6 \cdot 1.7} = 10.2$$

$$(12) \quad x_1 = 7 \quad y_1 = 6 \quad x_2 = -7 \quad y_2 = -6$$

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} =$$

$$= \sqrt{(-7 - 7)^2 + (-6 - 6)^2} =$$

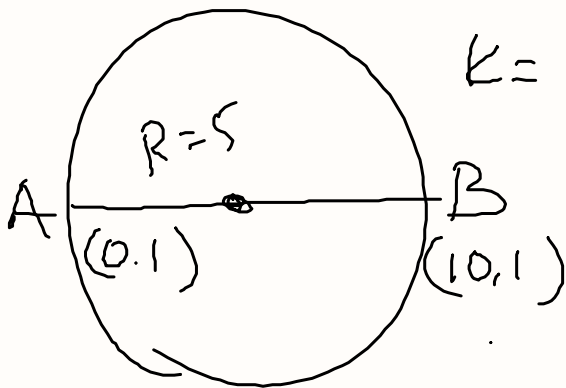
$$= \sqrt{(-14)^2 + (-12)^2} = \sqrt{196 + 144} =$$

$$= \sqrt{340} \approx 18.4$$

13

$$h = x_m = \frac{x_1 + x_2}{2} = \frac{0 + 10}{2} = 5$$

$$k = y_m = \frac{y_1 + y_2}{2} = \frac{1 + 1}{2} = \frac{2}{2} = 1$$



$$(x-h)^2 + (y-k)^2 = R^2$$

$$(x-5)^2 + (y-1)^2 = 25$$

$$(14) (x+8)^2 + (y-2)^2 = 25$$

$$x+8=0$$

$$-8 - 8$$

$$x = -8$$

$$y-2=0$$

$$+2 +2$$

$$y = 2$$

$$R = \sqrt{25} = 5$$

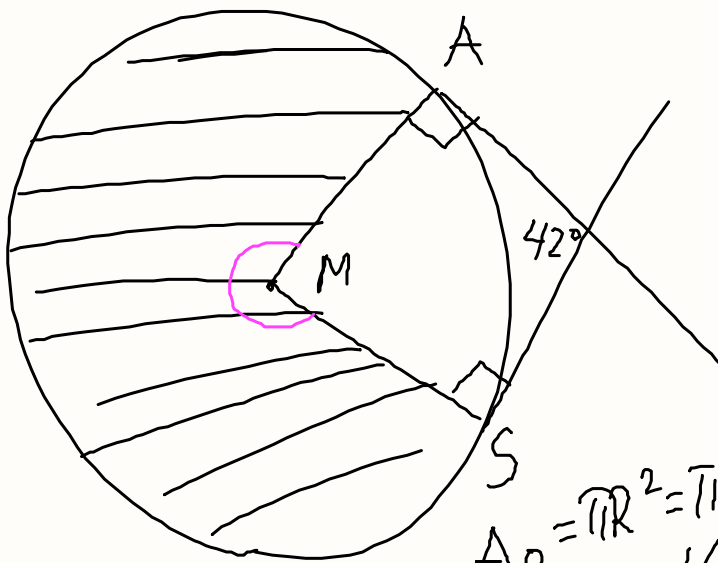
$$(-8, 2) \quad R = 5$$



15

$$R = 13 \text{ m}$$

$$m \angle AMS = 180^\circ - 42^\circ = 138^\circ$$



$$360^\circ - 138^\circ = \underline{222^\circ}$$

$$A_0 = \pi R^2 = \pi (13)^2 = 169\pi$$

$$\frac{169\pi}{360} = \frac{360^\circ}{222^\circ}$$

$$\frac{360}{360} x = \frac{169\pi \cdot 222}{360} = 104,2 \pi \text{ m}^2$$